REMARKS

The present Amendment amends claims 20, 22 and 29, and leaves claims 21, 23-28 and 30 unchanged. Therefore, the present application has pending claims 20-30.

35 U.S.C. §102 Rejections

Claims 20-23, 27, 29 and 30 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,442,651 to Crow, et al. ("Crow"). This rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 20-23, 27, 29 and 30 are not taught or suggested by Crow, whether taken individually or in combination any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

Amendments were made to the claims to more clearly describe features of the present invention. Specifically, amendments were made to the claims to more clearly recite that the present invention is directed to a data processing method and apparatus as recited, for example, in independent claims 20, 22 and 29.

The present invention, as recited in claim 20 and as similarly recited in claims 22 and 29, provides a data processing method in a service system. The service system includes a server apparatus, a client apparatus, and a data processing relay apparatus for relaying data between the server apparatus and the client apparatus. The method includes a first step of providing the data processing relay apparatus with a data processing unit for processing data in accordance with a data processing instruction that

indicates how to process the data. In a second step of the method, a data request, input by a user, is received from the client apparatus to the server apparatus by the data processing relay apparatus. The method includes a third step of sending the received data request to the server apparatus by the data processing relay apparatus. In addition, the method includes a fourth step of receiving, by the data processing relay apparatus, an extended data, which the server apparatus sends to the data processing relay apparatus in response to the data request, including the data requested in the data request and the data processing control information including a user's attribute that indicates how to process the received data. Furthermore, the method includes a fifth step of storing the received extended data by the data processing relay apparatus and a sixth step of extracting the data processing instruction from the data processing control information included in the extended data by the data processing unit of the data processing relay apparatus. Also in the method is a seventh step of processing the received data in accordance with the extracted data processing instruction by the data processing unit. The method further includes an eighth step of repeating the sixth step and the seventh step, until completion of processing in accordance with all the data processing instructions in the data processing control information by the data processing unit. A ninth step of the method includes sending, by the data processing relay apparatus, the data processed by the data processing unit to the client apparatus. The prior art does not disclose all of these features.

The above described features of the present invention, as now more clearly recited in the claims, are not taught or suggested by any of the

references of record, particularly Crow, whether taken individually or in combination with any of the other references of record.

Crow teaches a method of shared cache parsing. However, there is no teaching or suggestion in Crow of the data processing method and apparatus as recited in claims 20, 22 and 29 of the present invention.

Crow discloses a method and system for reducing latency in reviewing and presenting web documents to a user. A cache, which is coupled to one or more web clients, requests web documents from web servers on behalf of those web clients and communicates those web documents to the web clients for display. The cache parses the web documents as they are received from the web server, identifies references to any embedded objects, and determines if those embedded objects are already maintained in the cache. If those embedded objects are not in the cache, the cache automatically pre-fetches those embedded objects from the web server without need for a command from the web client. The cache maintains a two-level memory including primary memory and secondary mass storage. At the time the web document is received, the cache determines if any embedded objects are maintained in the cache but are not in primary memory. If those embedded objects are not in primary memory, the cache automatically pre-loads those embedded objects from secondary mass storage to primary memory without need for a request from the web client. Web documents maintained in the cache are periodically refreshed, so as to assure those web documents are not stale. The invention is applied both to original requests to communicate web documents and their embedded objects from the web server to the web

client, and to refresh requests to communicate web documents and their embedded objects from the web server to the cache.

One feature of the present invention, as recited in claim 20, and as similarly recited in claims 22 and 29, includes a fourth step of receiving, by the data processing relay apparatus, an extended data, which the server apparatus sends to the data processing relay apparatus in response to the data request. The extended data includes the data requested in the data request and the data processing control information including a user's attribute that indicates how to process the received data. Crow does not disclose this feature. For example, as described in column 3, lines 49-63, Crow discloses where a server device 130 includes a memory or storage 132 having a web document 133. The web document 133 includes references to at least one embedded object 134, which can include pictures, other multimedia data such as animation, audio, movies, video, program fragments, or other web documents. The web document 133 can also include text and directions for display. Neither the embedded object 134 nor the directions for display corresponds to the data processing control information including a user's attribute indicating how to process the received data, as claimed. Furthermore, as described in column 3, lines 49-51, Crow merely discloses where the web document 133 includes ***references*** to at least one embedded object 134. This mere reference is not the same as data processing control information including a user's attribute that indicates how to process the received data, as claimed. More specifically, the references of Crow do not indicate how to process the web document. Therefore, Crow does not teach or suggest the claimed feature.

Another feature of the present invention, as recited in claim 20, and as similarly recited in claims 22 and 29, includes a seventh step of processing the received data in accordance with the extracted data processing instruction by the data processing unit. Crow does not disclose this feature. To support the assertion that Crow teaches this feature, the Examiner cites column 5, lines 30-54. However, neither the cited text nor any other portions of Crow disclose where the data processing unit processes the received data in accordance with the extracted data processing instruction, as in the present invention.

Therefore, Crow fails to teach or suggest "a fourth step of receiving, by the data processing relay apparatus, an extended data, which the server apparatus sends to the data processing relay apparatus in response to the data request, including the data requested in the data request and data processing control information including a user's attribute indicating how to process the received data" as recited in claim 20, and as similarly recited in claims 22 and 29.

Furthermore, Crow fails to teach or suggest "a seventh step of processing the received data in accordance with the extracted data processing instruction by the data processing unit" as recited in claim 20, and as similarly recited in claims 22 and 29.

Therefore, Crow does not teach or suggest the features of the present invention, as recited in claims 20-23, 27, 29 and 30. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §102(e) rejection of claims 20-23, 27, 29, and 30 as being anticipated by Crow are respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 20-23, 27, 29 and 30.

35 U.S.C. §103 Rejections

Claim 24 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Crow in view of *Remote Authentication Dial in User Service (Radius)* by Rigney, et al ("Rigney"), further in view of *World Wide Web Caching: Trends and Techniques* by Barish, et al. ("Barish"). This rejection is traversed for the following reasons. First, claim 24 is dependent on claim 22. Therefore, claim 24 is allowable for at least the reasons previously discussed regarding independent claim 22.

In addition, Applicants submit that the features of the present invention, as now more clearly recited in claim 24, are not taught or suggested by Crow, Rigney or Barish, whether taken individually or in combination with each other in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

One feature of the present invention, as recited in claim 24, includes a step of sending, by the server apparatus, the extended data including the data processing control information with a user individual control information to the data processing relay apparatus, in response to the data request including the first user authentication information. The Examiner relies upon Rigney for teaching this feature. However, contrary to the Examiner's assertions, Rigney does not disclose this feature. To support the assertion that Rigney teaches this feature, the Examiner cites: the abstract; and page 3, last paragraph to page 15, last paragraph. However, contrary to the Examiner's assertions,

neither the cited text nor any other portions of Rigney teach or suggest the claimed feature.

Therefore, contrary to the Examiner's assertions, Rigney fails to teach or suggest "wherein the fourth step is the step of sending, by the server apparatus, the extended data including the data processing control information with a user individual control information to the data processing relay apparatus, in response to the data request including the first user authentication information" as recited in claim 24.

Each of Crow, Rigney and Barish suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Crow, Rigney and Barish in the manner suggested by the Examiner does not render obvious the features of the present invention as now more clearly recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claim 24 as being unpatentable over Crow in view of Rigney, and further in view of Barish, are respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claim 24.

Claims 25, 26 and 28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Crow in view of Rigney, further in view of Barish, further in view of U.S. Patent No. 6,314,451 to Landsman, et al. ("Landsman"), and even further in view of Official Notice. This rejection is traversed for the following reasons. First, claims 25, 26 and 28 are dependent on claim 22.

Therefore, claims 25, 26 and 28 are allowable for at least the reasons previously discussed regarding independent claim 22.

In addition, Applicants submit that the features of the present invention, as now more clearly recited in claims 25, 26 and 28, are not taught or suggested by Crow, Rigney, Barish, or Landsman, whether taken individually or in combination with each other and the Examiner's Official Notice in the manner suggested by the Examiner. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

One feature of the present invention, as recited in claim 25, includes a step of sending, by the server apparatus, the extended data added with the information identifying the user. The extended data includes the data processing control information including the data processing instruction indicating a charging process for the requested data. The Examiner relies upon Landsman in view of the Examiner's Official Notice for teaching this feature. However, Landsman in view of the Examiner's Official Notice does not teach or suggest sending, by the server apparatus, extended added with information identifying the user, where the extended data includes the data processing control information including the data processing instruction indicating a charging process for the requested data, as claimed.

Therefore, contrary to the Examiner's assertions, Landsman in view of the Examiner's Official Notice fails to teach or suggest "wherein the fourth step is the step of sending, by the server apparatus, the extended data added with the information identifying the user, the extended data including the data processing control information including the data processing instruction indicating a charging process for the requested data" as recited in claim 25.

One feature of the present invention, as recited in claim 28, includes a step of referring, by the data processing unit, to the data information server in response to the data processing instruction, obtaining the user attribute information corresponding to the received user identifying information, selecting the replacement or insertion data corresponding to the user attribute information, and performing the replacement or insertion on the data requested by the data request. It is unclear whether or not the Examiner has provided any support for the assertion that this feature is disclosed in the prior art. However, as best understood by Applicants, the Examiner has not provided any support for the assertion that any of the cited references teach or suggest this feature.

Therefore, contrary to the Examiner's assertions, the cited art fails to teach or suggest "wherein the twelfth step is the step of referring, by the data processing unit, to the data information server in response to the data processing instruction, obtaining the user attribute information corresponding to the received user identifying information, selecting the replacement or insertion data corresponding to the user attribute information, and performing the replacement or insertion on the data requested by the data request" as recited in claim 28.

Each of Crow, Rigney, Barish, and Landsman, in view of the Examiner's Official Notice, suffer from the same deficiencies, relative to the features of the present invention, as recited in the claims. Therefore, combining the teachings of Crow, Rigney, Barish, and Landsman, in view of the Examiner's Official Notice in the manner suggested by the Examiner does not render obvious the features of the present invention as now more clearly

recited in the claims. Accordingly, reconsideration and withdrawal of the 35 U.S.C. §103(a) rejection of claims 25, 26 and 28 as being unpatentable over Crow in view of Rigney, further in view of Barish, further in view of U.S. Patent Landsman, and even further in view of Official Notice, are respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the references used in the rejection of claims 25, 26 and 28.

In view of the foregoing amendments and remarks, Applicants submit that claims 20-30 are in condition for allowance. Accordingly, early allowance of claims 20-30 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417, NIT-5369 (formerly 500.40508X00).

Respectfully submitted,

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